K. Craig Wildfang
Minnesota State Bar No. 117043
Kurt Shaffert
Thomas H. Liddle
Molly L. DeBusschere
John B. Arnett, Sr.
M. Lee Doane
United States Department of Justice
Antitrust Division
Professions and Intellectual Property Section
555 Fourth Street, N.W., Room 9903
Washington, D.C. 20001
202/307-0467

Janet A. Napolitano United States Attorney 230 North First Avenue, Room 400 Phoenix, AZ 85025-0085

Attorneys for Plaintiff
The United States of America

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF ARIZONA

UNITED STATES OF AMERICA,

Plaintiff,

v.

Civil Action No.

PILKINGTON plc
and
PILKINGTON HOLDINGS INC.,

Defendants.

COMPLAINT

The United States of America, acting under the direction of the Attorney General of the United States, brings this civil action to obtain equitable and other relief against the Defendants named herein, and complains and alleges as follows:

JURISDICTION, VENUE, AND DEFENDANTS

- 1. This Complaint is filed under Section 4 of the Sherman Act (15 U.S.C. § 4) to prevent and restrain violations of Sections 1 and 2 of the Sherman Act (15 U.S.C. §§ 1 and 2). These violations result from conduct that, insofar as it involves trade or commerce with foreign nations, is within the purview of Sections 1 and 2 of the Sherman Act pursuant to the Foreign Trade Antitrust Improvements Act of 1982 (15 U.S.C. § 6a).
- 2. Defendant Pilkington plc ("Pilkington") is an English corporation with its principal place of business in St. Helen's, Merseyside, England. Pilkington is the world's largest float glass producer. Pilkington may be found or transacts business in the District of Arizona. Venue as to Pilkington is proper under 15 U.S.C. § 22 and 28 U.S.C. § 1391(d).
- 3. Defendant Pilkington Holdings Inc. ("Holdings") is a Delaware corporation with its principal place of business in Toledo, Ohio. Holdings is the wholly-owned subsidiary of Pilkington Overseas Holdings Ltd., an English corporation that is itself a wholly-owned subsidiary of a wholly-owned subsidiary of Defendant Pilkington. Holdings holds Pilkington's United States-based assets, including 80 percent of the outstanding shares of voting capital stock, and

thereby full control, of Libbey-Owens-Ford Co. ("LOF"), a

Delaware corporation headquartered in Toledo, Ohio. LOF is the

second-largest producer of float glass in the United States. The

remaining outstanding shares of LOF are owned by Nippon Sheet

Glass Co., Ltd. of Tokyo, another of the world's major float

glass producers. Holdings may be found or transacts business in

the District of Arizona. Venue as to Holdings is proper under 15

U.S.C. § 22.

II.

TRADE AND COMMERCE

4. The Defendants and their subsidiaries receive large amounts of money in the form of payments for float glass and float glass technology that flow across state lines and national borders. The Defendants' business activities and operations involve or affect the interstate and international flow of funds, and are within the flow of, and have a substantial effect upon, interstate and foreign commerce.

III.

BACKGROUND

A. Flat Glass

5. Flat glass is glass formed in a flat shape, such as for cutting into window panes, and glass formed flat and then bent or curved, such as for fabrication into automobile

windshields. Float glass is flat glass made by a float process as described below. Almost all of the flat glass currently made and sold throughout the world is float glass.

B. Float Glass Processes

- 6. Float glass processes involve placing molten glass on the surface of a pool of molten tin or other metal. The molten glass forms a flat layer that floats on this surface of molten metal, as oil floats on the surface of a pool of water. This flat layer of floating glass is allowed to cool until it is sufficiently rigid to retain its flat shape, and is then removed from the surface. In a float glass plant, the float glass process proceeds uninterruptedly: a stream of molten glass is delivered continuously to one end of the molten metal surface, forming an endless, cooling ribbon of glass that is continuously removed from the opposite end of the surface when sufficiently cooled. The ribbon of glass is then subjected to further processing, including annealing, inspection, and cutting to desired dimensions.
- 7. The first float glass process patent was issued in 1902 to an American unaffiliated with Pilkington. Over 50 years later, Pilkington applied for and obtained over 1,000 patents in various jurisdictions, including over 100 United States patents, on float glass process improvements. Pilkington's float glass process is sometimes called the "PB Process."
- 8. Pilkington began the first successful commercial production

- of float glass in 1962. Since then, others have developed their own float glass processes, which have been shown to be technologically and commercially viable.
- 9. Commercial float glass manufacture requires relatively large-scale, single-purpose plants that are not efficiently convertible to other use, nor are other manufacturing facilities efficiently convertible to float glass production. Float glass plants are operated continuously for periods of 8 to 12 years or more before requiring "cold shut-down" for extensive rebuilding and repair. The cost of designing and constructing a typically-sized float glass plant is between \$100 and \$150 million.

C. Float Glass Production

- 10. The largest demand for float glass is for fabrication into windows for dwellings and commercial structures, automobile glass products (e.g., car and truck windshields and windows), architectural products (e.g., siding panels for office towers and glass doors), and mirrors. The demand for float glass depends largely on such factors as the volume of housing starts, commercial construction, automobile production, and catastrophic storm damage. As with other homogeneous, fungible commodities, the key factors in marketing float glass are price and quality; brand names and trademark recognition are relatively unimportant to purchasers.
- 11. In 1991, United States' float glass producers shipped

approximately \$2.9 billion of float glass, with the four largest United States producers accounting for about 85 percent of this total.

12. Float glass shipments worldwide in 1991 were approximately \$15 billion, with the four largest producers accounting for about two-thirds, and the nine largest producers accounting for over 95 percent, of total world shipments. Worldwide float glass demand is increasing, largely in the developing economies of Asia, Africa, and eastern Europe.

D. Float Glass Process Technology Market

13. From 1984 to 1991, 55 new float glass plants were designed, built, and placed in service throughout the world. Of these plants, nine were built in North America, including seven in the United States. The construction worldwide of approximately 30 to 50 additional float glass plants is planned or projected for completion between now and the end of the century. Many are planned for locations, such as in Asian and eastern European countries, where the sponsoring entities are likely to award contracts to outside bidders for

plant design, construction, and construction supervision services. Such services include the specifying, ordering, and procuring of equipment and supplies for use in such plants.

- 14. Persons in the United States and elsewhere can compete, if not restrained, for the award of these float glass design and construction contracts. Among the persons engaging in such competition are firms that currently manufacture float glass, as well as others. Such contracts may be on a pure fee-for-service basis, or may provide the contractor an equity position in the plant to be built, or may provide other consideration for the contractor.
- 15. The relevant service market is the provision of float glass plant design, construction, and construction supervision services.
- 16. The relevant geographic market for these services is worldwide.
- 17. Competition to design and construct float glass plants, if not restrained, creates or increases demand for innovations in float glass-making technology. Such innovations tend to reduce the manufacturing cost and improve the quality of float glass.
- 18. Persons in the United States who successfully compete for contracts to design and construct float glass plants to be built outside the United States are engaged in

United States export trade or commerce with foreign nations for such services. Such export trade or commerce generates substantial domestic economic activity, providing numerous opportunities for employment of individuals and firms highly skilled in contributing to the creation of the designs, drawings, specifications, and other work product required to perform the exported services. Moreover, persons in the United States who design and construct float glass plants abroad are likely to specify domestic fabricators' and suppliers' products for use in these plants, thereby creating substantial additional opportunities for domestic economic activity. The design and construction of a typically-sized float glass plant abroad requires an investment of about \$100 million. When a United States firm provides those services, approximately \$35 to \$50 million of that total eventually flows into the United States economy in orders for domestic materials, equipment, and services.

E. Pilkington Licenses

19. Beginning in 1962, Pilkington entered into patent and know-how license agreements with all of its principal competitors. Although these agreements differed as to details, they generally provided for: (1) allocation and division of territories, restricting each licensee to a specified country or group of countries for the construction

and operation of float glass plants generally corresponding to the territory in which the respective licensee previously manufactured flat glass ("territorial restrictions"); (2) limitation on the use of Pilkington's float glass technology strictly to the manufacture of float glass ("use restrictions"); (3) restrictions on sublicensing of Pilkington's float glass technology; and (4) the reporting and grant-back of all improvements in float glass technology.

- 20. Pilkington's territorial and use restrictions discouraged competitor licensees from developing and using their own innovations in float glass technology. The territorial restrictions discouraged the development of competing technology by geographically limiting the opportunities for economic exploitation of innovations. The use restrictions had a similar effect since, according to Pilkington, the use of its technology to develop a new or broader range of float glass technology was a violation of the licensing agreement. The consequent reduction in innovation in float glass technology deprived consumers of the benefits of more efficient production techniques and higher quality glass.
- 21. Similarly, the reporting and grant-back provisions in the Pilkington license agreements disadvantaged competitors in creating and competitively marketing float

- glass technology that could be used free of Pilkington's licensing restrictions by eliminating or reducing economic incentives to innovate.
- 22. In many of its licensing contracts, Pilkington also imposed restrictions on the export of float glass from the allocated territories. Thus, Pilkington imposed restrictions on export of glass made in the United States by certain licensees, and export of glass made abroad to the United States.
- 23. By the end of 1982, Pilkington's principal United States patents, the specified duration of Pilkington's contracts with United States licensees, and the obligation of royalty payments under those contracts expired. Nevertheless, Pilkington continued to enforce the territorial, use, and sublicense restrictions in those contracts, until a licensed competitor could prove that all of Pilkington's float glass technology had become public knowledge.
- 24. Pilkington's maintenance and continued enforcement of the license restraints described above was not justified by any intellectual property rights of substantial value. Pilkington's core float glass technology was disclosed in numerous patents that have long expired, placing that technology in the public domain. Moreover, unpatented Pilkington float glass technology has been publicly disclosed

in substantial part. The remaining secret unpatented technology consisted largely of engineering solutions with no substantial value over other, equally efficacious engineering alternatives.

25. Pilkington's license agreements provided a framework for a worldwide cartel, created and controlled by Pilkington, for float glass technology and the design and construction of float glass plants. The agreements enabled Pilkington to exercise control over float glass markets as well as over the design and construction of new float glass facilities and to control the extent to which float process innovations were permitted to be commercially exploited.

IV.

FIRST CAUSE OF ACTION

(Contracts In Restraint Of Trade)

26. Beginning at least as early as 1982, and continuing until the date of this Complaint, the Defendants, without sufficiently valuable intellectual property rights, maintained and enforced licensing contracts and other agreements to restrict the construction and operation of float glass plants and float glass process technology in unreasonable restraint of interstate and foreign trade and

commerce in violation of Section 1 of the Sherman Act. This violation is likely to continue unless the relief asked for is granted.

- 27. For the purpose of forming and effectuating these contracts and agreements, the Defendants did the following things, among others:
 - (a) allocated and divided territories for, and limited the use of, float glass technology worldwide;
 - (b) interpreted and enforced the territorial and use restrictions so that their combined effect prevented competitors from using or developing competing float glass technology;
 - (c) required competitors to prove that all of the licensed technology had become publicly known before being relieved of the territorial and use restrictions;
 - (d) imposed and enforced restrictions on competitors' ability to sublicense float glass technology;
 - (e) imposed and enforced reporting and grant-back provisions in the license agreements;
 - (f) imposed and enforced restrictions on exports of glass by licensees from and to the United States; and
 - (g) continued enforcement of the territorial, use, and sublicense restrictions indefinitely, even after no

further licensing royalties were payable and the patents had expired.

V.

SECOND CAUSE OF ACTION

(Monopolization)

- 28. The allegations of $\P\P$ 26-27 of this Complaint are re-alleged and incorporated by reference.
- 29. By entering into licensing contracts with its competitors and continuing to enforce the restrictions imposed in those contracts and by the other predatory and exclusionary conduct described herein, Pilkington willfully acquired, and willfully maintained, a monopoly in the world market for the design and construction of float glass plants in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2, with adverse effects that satisfy the requirements of the Foreign Trade Antitrust Improvements Act of 1982, 15 U.S.C. § 6a. This violation is likely to continue unless the relief asked for is granted.
- 30. Over 90 percent of the float glass produced in the United States and throughout the world is manufactured subject to restraints imposed by Pilkington through its licensing contracts with competitors. These restrictive contracts have enabled Pilkington to monopolize the worldwide

market for the design and construction of float glass plants, and to exercise control over float glass technology and the extent to which float glass innovations are permitted to be commercially exploited.

VI.

EFFECTS

- 31. These violations had the following direct, substantial, and reasonably foreseeable effects, among others, which satisfy the requirements of the Foreign Trade Antitrust Improvements Act of 1982, 15 U.S.C. § 6a:
 - (a) restraint and reduction of competition in the United States' export business for the design and construction of float glass plants outside the United States;
 - (b) restraint and reduction of competition in the United States' export business for the design, fabrication, furnishing, shipping, and packaging of related equipment and supplies for float glass plants constructed or renovated outside the United States;
 - (c) restraint and reduction of the export of glass to and from the United States; and
 - (d) depriving United States' businesses and consumers of the benefits of free and open competition.

VII.

RELIEF

WHEREFORE, Plaintiff prays that this Court enter final judgment against the Defendants declaring, ordering, and enjoining them, and all persons acting in concert with them, as follows:

- 1. That the provisions in Pilkington's contracts and agreements with float glass manufacturers that specify the territorial limits where a manufacturer may manufacture and sell float glass and the provisions that limit the use of information originally supplied by Defendants for further innovation in float glass technology be declared and adjudged to be in violation of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1 and 2, and no longer enforceable.
- 2. That Pilkington, and all others acting in concert with Pilkington, be permanently enjoined from enforcing said provisions and from interfering with the efforts of any person in this country to perform or offer to perform services connected with the design or construction of float glass plants anywhere in the world, and from interfering with the design, construction, or operation of any such plant or the sale or shipment of glass from those plants.

- 3. That Pilkington, and all others acting in concert with Pilkington, be permanently enjoined from enforcing said provisions and from interfering with the efforts of any person anywhere in the world to perform or offer to perform services connected with the design or construction of float glass plants in the Unites States, and from interfering with the design, construction, or operation of any such plant or the sale or shipment of glass from those plants.
- 4. That Pilkington, and all others acting in concert with Pilkington, be permanently enjoined from interfering with the efforts of any person, including any contracting manufacturers' former employee, who has never been or who no longer is under any lawful obligation to maintain secrecy, to offer services in connection with the design or construction of float glass plants, whether by representing that such services would violate intellectual property rights or otherwise.
- 5. That Pilkington, and all others acting in concert with Pilkington, be enjoined from monopolizing or attempting to monopolize the market for the design and construction of float glass plants.
- 6. That Plaintiff have such other relief as may be just and proper.

7. That Plaintiff be awarded its costs in this action.

Robert E. Litan Kurt Shaffert

Deputy Assistant Attorney General

Thomas H. Liddle

Mark C. Schechter

Deputy Director of Operations

Molly L. DeBusschere

K. Craig Wildfang Special Counsel to the Assistant Attorney General, Antitrust Division

John B. Arnett, Sr.

Gail Kursh Chief, Professions and Intellectual Property Section

M. Lee Doane

David C. Jordan
Washington D.C. 20001
Assistant Chief
Professions and Intellectual
Property Section

Attorneys
U.S. Department of Justice
Antitrust Division
555 4th Street, N.W.
Room 9903, JCB
202/307-0467

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this day of May, 1994 he caused true and correct copies of the foregoing Complaint, Stipulation, Competitive Impact Statement, and Government's Motion Under Local Rule 1.2(e)(1) To Assign This Case With Above-Named Related Cases to be served by mail upon the following:

John H. Shenefield, Esq. Morgan, Lewis & Bockius 1800 M Street, N.W. Washington, DC 20036

Attorney for Defendants Pilkington plc, Pilkington Holdings Inc., and Libbey-Owens-Ford Co. in CIV 92-752-TUC-WDB, CIV 93-552-TUC-WDB, and CIV 94- -TUC-WDB.

Thomas D. Barr, Esq. Cravath, Swayne & Moore Worldwide Plaza 825 Eighth Avenue New York, NY 10019

Attorney for Plaintiff PPG Industries, Inc. in CIV 92-775-TUC-WDB.

Kenneth C. Anderson, Esq. 685 Third Avenue New York, NY 10017

Attorney for Plaintiff International Technologies Consultants, Inc. in CIV-93-552-TUC-WDB.

Jeffrey Willis, Esq. Streich Lang 33 N. Stone Avenue Tucson, AZ 85701

Attorney for Defendant Guardian Industries Corporation in CIV-93-552-TUC-WDB.

Donald A. Wall, Esq.
Squire, Sanders & Dempsey
Two Renaissance Square
40 North Central Avenue, Suite 2700
Phoenix, AZ 85004-4441

Attorney for Defendant AFG Industries, Inc. in CIV-93-552-TUC-WDB.

K. Craig Wildfang
Attorney for the United States